

## INEXPENSIVE ELECTRIC EYE

Here's an electric eye that can be built from junkbox parts. It consists of a CdS photocell, a 7486 exclusive-OR gate IC, an npn switching transistor (2N3055 or similar) and a small electric bell. When no object interrupts the light path from a lamp to photocell *LDR1*, both inputs to the ex-OR gate are low. Thus the gate's output is low and the transistor is cut off. Interrupting the light beam causes the

gate output to go high and the transistor to conduct, energizing the bell. A 6-volt lantern battery can be used as a power source. All parts can be obtained for about \$3 from a surplus house. A simple pc board is used, and can accommodate up to four independent circuits, each using one gate in the quad ex-OR IC. The entire alarm can be mounted on a TO-3 heat sink.—*Kenneth B. Blois, APO SF 96286.*

